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by

Robin Lee Csuti

March 1988

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An Examination of the Current Revolution
in Soviet Military Affairs

by

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Lieutenant, United States Navy
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Submitted in partial fulfillment of the
requirements for the degree of

MASTER OF SCIENCE IN NATIONAL SECURITY AFFAIRS

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ABSTRACT

Russian and Soviet history is characterized by many unique periods of development. Military doctrine has evolved in such cycles with specific identifiable variables. The Soviet Union has experienced two definite revolutions in military affairs since its inception. This thesis delinates those variables evident in past doctrinal revolutions. Current events within the Soviet Union are then examined to determine if a third revolution in military affairs is occurring.

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I. INTRODUCTION

The history of the Russian Empire and the Soviet Union is characterized by self-negation: avowed proclamations of intent accompanied by concurrent and subsequent actions often in contradiction. When analyzing the actions of the leaders of the Communist Party of the Soviet Union (CPSU) and their policies, the resulting events and negations must be considered.

The characteristic of self-negation is rooted in the philosophy of Karl Marx and Vladimir Lenin. Marx, as an admirer of the philosopher Hegel, adapted his theories on human society, earth, heaven and God into a doctrine fitted to the Communist movement. One result was the theory of the Dialectic process which provides tools for use in examination of ideas to determine their validity. *The Great Soviet Encyclopedia* discusses the Dialectic in depth.¹

The first tool is the Law of the Unity and Struggle of Opposites. The underlying principle of this law is that everything is tied to its opposite. The creation of an object or idea also gives birth to the creation of its opposite. The law of unity causes these opposites to be interconnected.

The Law of the Negation of the Negation is the second principle of the Dialectic. "Every link that appears in the chain of phenomena includes its own negation--that is the possibility of transition to a new form of being."² This law characterizes the direction of development. "Its (the Law of the Negation of the Negation) basic content is the unity of forward movement, progress and continuity in development and emergence of

¹ *The Great Soviet Encyclopedia*, 3d ed., vol. 8 (Moscow: Sovetskaia Entsiklopediia Publishing House, 1970). Translated by MacMillan, Incorporated, 1975, pp. 185-194.

² *The Great Soviet Encyclopedia*, "Dialectic Materialism," p. 190.

a new and relative recurrence of certain previously existing elements.”³ There is never a period of stability or status quo. However, the negated state does not disappear all at once. Its useable parts remain. In this dialectical negation, the only old that continues in the system is that which has a useful place in that system created by the new.

The final law of the Dialectical process is the law of Reciprocal Transformation of Quantitative into Qualitative Changes. “A change in the quality of an object occurs when the accumulation of quantitative changes reaches a certain limit, and a leap--that is the replacement of one quality by another--occurs.”⁴ The changes in the methods of warfare can be analyzed using this law. When a new means of destruction is invented--the tank for example--the standards of warfare suddenly change, from trench to mobile combat as from World War I to World War II style conflict.

Before the actual statement of the Dialectic by Marx, Russian actions reflected its existence. Russian and Soviet military doctrinal changes have been driven by quests for advances in military technology which in turn implement and are implemented by economic reform. This entire process is an example of the Dialectic at work. Certain elements of this process can be identified by examining Russian and Soviet history. These specific features include technological advances, evolving military doctrine and economic reform. Elements of this process are military organization restructuring and peace initiatives which are based on the need for improved international relations.

This dynamic process continues today. Evidence exists that in the 1970s the pattern was repeating itself.⁵ As before, the process started with a revolution in military affairs.

³ Ibid.

⁴ Ibid.

⁵ See: William E. Odom, “Soviet Force Posture: Dilemmas and Directions,” *Problems of Communism*, July-Aug 1985, pp. 1-14; Michael MccGwire, *Military Objectives in Soviet Foreign Policy* (Washington, DC: The Brookings Institute, 1987); John G. Hines, Phillip A. Peterson and Norta Turlock, III, “Soviet Military Theory from 1945-2000: Implications for NATO,” *The Washington Quarterly*, Fall 1986, pp. 117-136; and Mary C. FitzGerald, “Marshal Ogarkov and the New Revolution in Soviet Military Affairs,” *Defense Analysis*, vol. 3, no. 1, pp. 3-19.

The major proponent of the evolving doctrine was Marshal Nikolai Ogarkov who presented the Scientific-Technical Revolution in Military Affairs. This cycle of change is currently in the economic phase. General Secretary Gorbachev appears to be the prime supporter and motivator of this element. For this analysis to be valid, the elements identified above should be in evidence. This research is an attempt to examine the current revolution to determine if they can be found.

II. A HISTORICAL PERSPECTIVE

To understand better the dynamic relation between the quest for military technology and military doctrine, that doctrine and economic reform, and economic reform and military technology, an examination of certain events in Russian and Soviet history is undertaken. The goal of this exercise is to determine if traditional patterns of behavior regarding these factors do exist.

Military doctrine as defined by the *Soviet Military Encyclopedia* is a "system of views adopted in a state for a given period of time on the objectives and character of a possible war, on preparation of the country and armed forces for war, and on methods of waging war." In Communist terms, military doctrine is concerned with all aspects of a future war. Developing Russian military doctrine, though not defined to the extent of Soviet military doctrine, can be traced back to the seventeenth century.

A. PETER THE GREAT (1672-1725)

When Peter assumed supreme power in 1696, his inheritance included a military tradition which had evolved from the experiences of seventeenth century Russian rulers. "The deplorable showing made by the militia in the wars with Poland (1618, 1632-1634, 1654-1689) and Sweden (1656-1658) demonstrated the inferiority of untrained Muscovite troops."⁶ To offset the lack of trained troops, foreign mercenaries were used to fill the ranks of the standing army. These professional soldiers had to undergo regular training in the art of warfare.⁷

⁶ Michael T. Florinsky, *Russia, A History and Interpretation* (New York, NY: The Macmillan Company, 1959), p. 273.

⁷ Ibid.

The officers in charge of the regiments were either Russians who had mastered the rudiments of military science or foreigners--Germans, Swedes, Scotsmen, Poles, Lithuanians, Greeks and Serbians.⁸ Two additional reforms effected in reaction to military defeats of that century were great expansion in the size of the armed forces and an even greater increase in the expenditure for its maintenance. Florinsky states that this force modernization created a demand for new weapons based on technologies existing in the West and not in Imperial Russia.⁹ The technologies which the Russians lacked were in such areas as rifles, artillery and munitions.

In order to achieve the goal of military modernization, existing policies concerning the West had to be modified.

The government took the initial timid steps towards the development of Russia's natural resources by importing foreign engineers and by granting concessions to foreign capitalists. In 1632 the Dutch merchant Andrew Vinius established the Tula armament works which were later taken over by the government.¹⁰

Other concessions were granted to foreigners in parts of the country where deposits of iron ore were discovered. The government imported a large number of skilled craftsmen--weavers, watchmakers, masons, smelters, ironmasters, painters, doctors and astrologers.¹¹

Complementing this military inheritance, Peter brought with him the knowledge gained from years of study of Western civilization and its warfare techniques. Florinsky credits Kluchevsky with concluding that Peter sought to learn "western technique, not western civilization."¹² Peter gained part of his experience from his travels through

8 Ibid.

9 Ibid, p. 295.

10 Ibid.

11 Ibid, p. 299.

12 Ibid, p. 321.

Europe in 1697-98. His object was to master at least the rudiments of shipbuilding, navigation and the military arts.

The lessons of past conflicts taught Peter that in order to succeed in future conflicts, a country needed military technology comparable to the enemies'. He used these lessons to prepare for a future war which would help him achieve his first goals as czar: to secure for Russia the rank of a great power and to gain access to the sea. Peter was planning for a future war guided by the experiences of past conflicts. These past conflicts were characterized by the lag in Russian military technology. As a consequence of these efforts, military doctrine was evolving.

The ruler is credited for his efforts to modernize the Russian Empire in the areas of the military, the economy and the society. His reforms to modernize his country did benefit some of his subjects in a limited fashion, but the desire to Westernize was not motivated by humanitarian virtues. It was motivated by one basic fear, military backwardness and obsolescence. Western Europe had already made dramatic shifts in methods of warfare as a result of the Renaissance, Reformation and baroque periods of craft and technology development. At a time when Europe was beginning to undergo further dramatic change as a result of the Industrial Revolution, Russia was still primitive and agrarian based. "Peter retained until his death an unfaltering belief in the magical power of western technique and an unswerving devotion to the army, and especially to the navy."¹³

The ruler drove his country to modernize to the detriment of the peasants. He felt that Russia faced a potential military threat from those European nations which were becoming technically better equipped. Credited with improving the Russian army and creating the navy, he regarded all the country's resources as being at the service of the state for the good of the country as a whole.

¹³ Ibid, p. 326.

Peter required greater service from those serving in the military. Noblemen serving as officers in the new Russian army or navy had to learn how to fight with modern weapons and tactics. The concept of service was broadened to include the duty to become educated. A decree in 1712 set the foundation for a new generation of military officers and for the eventual elimination of the old.¹⁴ All sons of landowners were directed to report to the Senate, the chief executive and legislative organ of the central government. Once they were divided into age groups, they were sent to study seamanship, or to receive naval training or to report for duty in the army.¹⁵ Peter intended for the leadership of the armed forces to be professionally trained military officers.

During his rule, Peter engaged in war with Turkey, Sweden and Persia. His foreign policies regarding the West in general, however, were based on the need to infuse his country with the gains the West was making in craft and technology development. Russian primitive industries were unable to meet the demands of a huge modernized army equipped according to the standards of western Europe and of a new navy.

During his drive for reform, he relied on experts invited from other countries to direct new enterprises.

In 1702, he issued a proclamation, widely distributed in the West, opening Russia to all foreigners (except Jews), and promising them, besides free passage and employment, full religious toleration and special law courts. This was intended above all to attract military men and skilled artisans.¹⁶

¹⁴ Robert K. Massie, *Peter the Great* (New York, NY: Alfred A. Knopf, Incorporated, 1980), p. 756.

¹⁵ *Ibid*, p. 757.

¹⁶ B. H. Sumner, *Peter the Great and the Emergence of Russia* (London, GB: The English Universities Press Limited, 1956), p. 57.

In his later years, Peter also sent young Russians abroad to be trained in various trades.¹⁷ These visits were made possible because of the improved relations with the West.

B. ALEXANDER II (1855-1881)

A similar process occurred in the 1800s. After the Russians lost the Crimean War against Great Britain, France and Turkey (1854-56), blame for the loss was placed on the lack of competitive military technology and a backward social structure. The repressive policies of Nicholas I (1825-1855), which he justified as necessary for the retention of the security of the state, caused instead a great insecurity which contributed to the loss of the war. His policies froze society which resulted in a loss of military technological advancement. Alexander II, Nicholas' successor, and his advisors realized that the defeat was caused in large part by the empire's stagnation and that conditions had to be brought to the level of those prevailing elsewhere in Europe.

A doctrine of the necessity for preparation for a future war based on the results of the Crimean War can be identified as developing during Alexander's time. Shoddy materials, a dearth of ammunition and medical supplies, poor logistics, disease, and military ineptitude were factors which Alexander and his minister of war, General Dimitry Miliutin, saw all too clearly as weaknesses contributing to the loss of the war.

General Miliutin is credited with instituting a reform program which drove military doctrinal change. "Important technical improvements were introduced in the organization of the ministry of war, the general staff, the territorial distribution of the troops, the commissariat, medical service, army engineers, military courts."¹⁸ Miliutin made additional changes which further affected doctrine.

¹⁷ Florinsky, p. 326.

¹⁸ Ibid, p. 907.

Obsolete weapons of the Crimean period were gradually replaced by up-to-date arms and equipment. Military schools, formerly under a separate central department, were brought in 1863 within the purview of the ministry of war and were reorganized in accordance with a liberal program which compared favorably with that of corresponding schools under the ministry of education.¹⁹

The outcome of the Franco-Prussian war, also made an impact on Miliutin. Both armies were considered professional. The French had state-of-the-art weapons in their arsenal--early machine guns and *chassepot* rifles.²⁰ Under Bismark's guidance, the Prussian Army was considered to be very advanced. "The armed forces, including the trained reserves, could be brought to full strength on the shortest notice."²¹ The threat posed for Russia from these two powers was staggering. When comparing the military of Russia with France and Germany,

Miliutin realized that Russia was still far behind in the competition of the Powers, and he felt that the time had come to radically reorganize the whole system of recruitment, to create for the first time a system of universal military service, to place the Russian army on the same footing as the German and the French.²²

With the encouragement of Miliutin, the czar had a decree adopted in 1874 which created the cadre army. In general this meant that regular officers would provide training for conscripts who served for specific periods of continuous service.²³ The normal term of active service was six years followed by nine years in the reserve and five more years in the militia.²⁴ The reserve and militia were mobilized only in emergencies.

¹⁹ Ibid.

²⁰ Hajo Halborn, *A History of Modern Germany, 1840-1945* (New York, NY: Alfred A. Knopf, Incorporated, 1975), p. 216.

²¹ Kurt F. Reinhardt, *Germany, 2000 Years* (Milwaukee, WI: The Bruce Publishing Company, 1950), p. 544.

²² Hugh Seton-Watson, *The Russian Empire, 1801-1917* (Oxford, GB: Oxford University Press, 1967), p. 387.

²³ Harriet Fast Scott and William F. Scott, *The Armed Forces of the U.S.S.R.*, 3d. ed. (Boulder, CO: Westview Press, 1982), p. 17.

²⁴ Seton-Watson, p. 908.

Historians credit Alexander with instituting a great many reforms.²⁵ The long-term goal of these reforms was to create a Russia which was on the same technological level as other world powers: a Russia that would not again be beaten by advanced technology of the enemy.

Alexander and Russian statesmen of that time realized that during the ensuing period of domestic modernization Russia could not continue to exert the same amount of influence abroad as it had in the past. Consequently, Russian foreign policy of the following reform period became somewhat less aggressive while the leaders attempted to increase the level of indigenous technological development.²⁶ Alexander relied on improved relations with the West to gain the expertise in foreign industrial technology needed to improve outdated Russian industry and to introduce new technology. Many of the textile industries were owned and operated by the British.²⁷ "Foreign entrepreneurs were also largely responsible for the transformation of Russian metallurgy."²⁸

"The aim of the Russian government was to increase the military might and prestige of the Russian State. . . . Industrial development was welcomed as modernizing the country. Foreign capital was welcomed as a means of developing economic resources."²⁹ The Russian peasant bore the burden of this development. "Thus the prestige of the autocracy, the military power of the empire, and the modernization of the economy were paid for directly by grain exports and foreign loans and investments, and indirectly by over-taxation and undernourishment of the peasants and workers."³⁰

²⁵ For example see Seton-Watson, chp. 10.

²⁶ W. E. Mosse, *The European Powers and the German Question, 1848-71* (London, GB: Cambridge University Press, 1958), p. 147.

²⁷ J. N. Westwood, *Endurance and Endeavour* (Oxford, GB: Oxford University Press, 1973), p. 84.

²⁸ *Ibid.*

²⁹ Hugh Seton-Watson, *The Decline of Imperial Russia, 1855-1914* (New York, NY: Frederick A. Praeger, Incorporated, 1958), p. 122.

³⁰ *Ibid.*, p. 123.

C. THE FIRST SOVIET REVOLUTION IN MILITARY AFFAIRS

New technologies which appeared in World War I guided the revolution in military affairs of the new communist nation. The implications of aviation, motorization and chemical weapons combined with the threat posed by their existence in the enemy's arsenal caused extensive doctrinal review. "They (the new technologies) portended . . . a less clear distinction between the 'front' and the 'rear' in war. Bombing of cities, industrial plants, and military forces deep in the rear areas could be expected. Motorized forces could conduct much deeper operations."³¹

Lenin was extremely cognizant of the lessons of World War I regarding the possession of the most up-to-date technology. In his remarks of March 15, 1918, upon signing the Treaty of Brest-Litovsk with Germany, he noted:

The war taught us a great deal, not only that people suffered, but especially that those who have the best technology, organization, discipline and the best machines emerge on top; it is this the war has taught us, and it is a good thing it has taught us. It is essential to learn that without machines, without discipline, it is impossible to live in modern society. It is necessary to master the highest technology or be crushed.³²

The new technologies Lenin referred to would change the way a future war would be fought and would require a well-trained officer corps and a literate manpower base for military recruitment.

The military doctrine which evolved in the first years of the Communist regime was based on the Soviet definition of peace as developed by Lenin. Peace means the destruction of all non-socialist states. The term "peaceful coexistence" which also affected the early military doctrine is defined in terms which are again much different from the West's. By the end of 1920 Lenin had given up hope of the revolution sweeping the

³¹ Odom, p. 3.

³² Vladimir Lenin, *Polnoe sobranie*, vol. 27 (Moscow: Progress Publications, 1965), p. 127.

world. "He replaced it with the more modest aim of securing Soviet Russia's coexistence with the capitalist countries"33

Normal diplomatic relations, trade and credits with the capitalist enemies were sought. Lenin's goal was the survival of the new regime. He did not abandon his belief that the Communist revolution would spread. "Once embarked on the new course, which included granting concessions to foreigners and engaging in trade negotiations with capitalists, he (Lenin) was at pains to emphasize that the new tactic constituted neither opportunistic desertion of Communist principle nor any peace treaty with the capitalist world."³⁴

The personnel changes which took place during and immediately after the Bolshevik Revolution are unique. Many of the czarist military leaders were killed; some joined the revolutionaries. Several of the commanders of the new army were of the Voroshilov and Frunze type, revolutionaries who had no former military experience. The early leaders of the Red Army--Trotsky, Frunze, Tukhachevski, etc.--had many different ideas on the requirements of a modern military and especially the course future development of the Red Army should take. They were all united, however, on the fundamental essential need for vastly improved literacy and rapid economic/technological development.³⁵ To replace the poorly educated peasants who fought in the Civil War service academies were started with military and general education being stressed.³⁶ A new generation of military leaders was being created. The Red Army became a school for literacy with officer education receiving top priority.

33 Bertram D. Wolfe, *Lenin and the Twentieth Century* (Stanford, CA: Hoover Institution Press, 1984), p. 142.

34 Ibid, p. 147.

35 D. Fedotoff-White, *The Growth of the Red Army* (Princeton, NJ: Princeton University Press, 1944), p. 203-209.

36 Ibid.

The policy conceived in the aftermath of World War I and the Russian Civil War was intended to be a way to avoid war with the West, which Lenin believed the new nation would lose. For international relations this meant an increased need for greater cooperation. One result of this policy was the Rapallo Treaty which established diplomatic relations with Germany and, more importantly, set the tenor of economic collaboration which included all-around technical and military aid accorded to the Soviet Union by Germany.³⁷ For the Soviet Union it meant devoting resources to building and maintaining a strong economy based on infused German technology to build an indigenous industry to support a military which would win in time of war.

The goal of Lenin's New Economic Policy (NEP) was not intended to create a better life for the peasant. NEP was introduced to keep the regime from collapsing. The short term risks of this plan by reintroducing some capitalistic practices were offset by the desire and achievement of a large, modern military in the future.³⁸ Accompanying this goal was the need for improved relations with other world powers. Due to the Rapallo Treaty, the Soviets felt less threatened by a unified front which would have allied Germany with other European powers against the Soviets. Improved relations with other powers were also needed to preserve peace, which would allow the Soviets to devote attention to domestic troubles, consolidate internal power and to attract badly needed economic and technical assistance.

Joseph Stalin inherited a deficiency in military technology that was intensified by the treatment of the intelligentsia during the Civil War and the subsequent deportation of many more members of that group. In developing the first Five Year Plan Stalin chose the goal of modernizing heavy industry. Heavy industry, Stalin argued, had to be at the center of this effort, because that alone could guarantee the needs of the military defense,

³⁷ Mikhail Heller and Aleksandr Nekrich, *Utopia in Power* (New York, NY: Summit Books, 1986), p. 252.

³⁸ Odom, p. 3.

and because from heavy industry would in time come benefits for all the rest of the economy.³⁹ The standing Red Army was reduced, which misled many foreign observers to conclude that the Soviet regime was disarming itself.⁴⁰ To many on the outside these policies indicated the choice by Stalin of butter rather than guns. The year after Lenin's death, 1924, became the year that the Union of Soviet Socialist Republics gained recognition from Great Britain, Italy, Norway, Austria, Greece, Sweden, China, Denmark and France.⁴¹ These actions normalized relations with world powers which ensured the fledgling country would be able to devote time to relieving its domestic problems.

Betterment of the life of the average Soviet citizen was not the driving force behind Stalin's economic plan; the need to build Soviet heavy industry was the driving force of this reform. In November 1928 Stalin told the Central Committee why industry had to occupy its central position in the plan. It is not enough to have caught up to the capitalist countries in political forms, he claimed, "To achieve the final victory of socialism in our country we need to catch up and overhaul those countries in the technical and economic sense. Either we do it, or we shall be crushed."⁴² In a later speech (February 1931), he dramatized even more the stigma which many Communists, including Lenin, had felt was tainting Russia: "One feature of the history of old Russia was the continual beatings she suffered because of her backwardness . . . We are fifty or a hundred years behind the advanced countries. We must catch up this distance in ten years. Either we do it or we go under."⁴³

³⁹ Geoffrey Hosking, *The First Socialist Society* (Cambridge, MA: Harvard University Press, 1985), p. 150.

⁴⁰ For a discussion of the changes surrounding the First Five Year Plan see: Heller and Nekrich, and Hosking.

⁴¹ Heller and Nekrich, p. 209.

⁴² Hosking, p. 150.

⁴³ Hosking, p. 150.

The development of Soviet military doctrine coupled with the lessons of World War I taught the Soviet regime the implication of new technologies for the future war with the capitalists and drove the evolution of doctrine, technological development and economic reform in the 1920s and 1930s.

D. THE SECOND REVOLUTION

In the late 1940s and early 1950s, a second revolution in Soviet military doctrine was again being motivated by and motivated the quest for improved military technology and economic reform. The events following World War II are very similar to those of the 1920s. Most of the active duty forces were demobilized. The system of military education was changed to bring about an extensive upgrading of military schools and service academies. The Soviets learned from World War II that three new technologies--nuclear weapons, missiles and cybernetics--emerged to affect the nature of a future war and again reawakened the fear of Western technological advancement.⁴⁴

The doctrinal changes which resulted required that traditional military principles be rejected and new ones adapted. The nature of war was redefined as the result of the new technologies.

Assuming that the three technologies would change the nature of future war, Soviet theorists considered it essential that military doctrine come to grips with two central effects arising from them: the large firepower that nuclear weapons bring to the battlefield, and the great range and accuracy in the delivery of that fire power made possible by rocketry and cybernetics.⁴⁵

In this case, as before, doctrine preceded technological advances. The Soviet force structure of the late 1960s and 1970s and its associated weapons capabilities resulted from this newly developing doctrine. Stalin's death added additional impetus to the development of doctrine during the 1950s.

⁴⁴ Odom, p. 4.

⁴⁵ Odom, pp. 4-5.

When Nikita Khrushchev came to power in 1953, economic reform was again stressed as the major portion of the party agenda. At first the new leadership attempted to reorganize the economy on a more stable and realistic basis.⁴⁶ Emphasis was placed on consumer goods, wage increases and price reductions. The ultimate goal of the reforms, however, was to rebuild the industrial-economic base of the country to counter the effects of World War II.

The repressive policies Stalin used to achieve greater production at the expense of the average citizen were no longer possible. Khrushchev tried to replace terror by mobilizing the masses to participate in the political process. "He was concerned to mobilize the people's energies for production, to ease the harsher forms of compulsion applied by Stalin, and to relieve the stark poverty in which so many lived before 1953."⁴⁷ Perhaps this man of peasant background realized that a person whose life is made easier and whose standard of living is raised will work harder to achieve the goals of the state.

Though the Soviets had driven the development of their own atomic bomb and subsequently exploded it in 1949, this was more a reaction to the events of 1945 over Hiroshima and Nagasaki. Actual military technological advancement seemed to stall. While Khrushchev appeared to be pursuing peace by instituting his economic reforms and by cutting the size of the armed forces, he was investing heavily in new military technology.

The Soviet leadership seemed to suddenly recognize the new technologies emerging from World War II had great impact on the future of the nation.

In keeping with these changed attitudes and policies, enormous sums were allocated to science. New research institutes were created. Basic scientific research, which had become almost nonexistent, was revived and expanded. The needs of the state,

⁴⁶ Heller and Nekrich, p. 545.

⁴⁷ Hosking, p. 353.

always tied to the strengthening of its military capacity, required more highly refined technology, more sophisticated weapons.⁴⁸

The period of the 1950s and 1960s is characterized by great achievements in Soviet military technology which include the earth's first hydrogen bomb, new jet bombers, the world's first artificial satellite and the first intercontinental ballistic missile. With these events, the Soviets were achieving their goal of gaining parity with the West in military significant technology.

In the decade of the 1950s the Soviets renewed efforts to ensure peace. Indochina, Austria and Yugoslavia were recipients of Soviet peace initiatives.⁴⁹ In 1963 the Soviet Union and the United States signed the Nuclear Test Ban Treaty which coincided with the Soviet Union's announced pursuit of peaceful coexistence and diplomatic detente with the West. The paradox of Soviet behavior is revealed in the circumstances of the Cuban Missile Crisis in 1962. "Despite threatening noises and the occasional crisis that erupted in relations with the Western powers, Khrushchev's foreign policy as a whole was oriented toward enlarging contact and cooperations with the Western powers, particularly the United States."⁵⁰ Khrushchev was obsessed with the idea of comparing the Soviet Union to the United States, in areas ranging from meat and corn production to state-of-the-art technology.

During this time Soviet leaders sought to convince the West that its perception of the Soviet policy of "peaceful coexistence" was valid. In actual practice, the definition was quite different.

The CPSU . . . views peaceful coexistence as a form of class struggle developing in the political, economic and ideological spheres in the international arena. By fighting against the outbreak of another world war, and organizing and leading the

⁴⁸ Heller and Nekrich, p. 556.

⁴⁹ Heller and Nekrich, p. 562.

⁵⁰ Heller and Nekrich, p. 570.

workers, national liberation, and all-democratic movements, the communists . . . pave the way to the triumph of socialism in the whole world.⁵¹

E. REVEALED PATTERNS OF BEHAVIOR

What has emerged from this brief study of Russian and Soviet history are certain behavioral characteristics.

1. Change from the Top

A trait found is that change comes from the top. The political and military leaders recognize the need for reform and become the motivating forces. Resistance to such change is inherent in the Russian and Soviet bureaucratic structure. This inertia is diffused throughout the system.

2. Technological Threat

A major factor driving the Russian and Soviet leaders was a fear of advancing Western military technology and the subsequent inability of both Russia and the Soviet Union to keep pace. This characteristic "reflects a deep-seated historical sense of technical inferiority that has characterized the Russian and Soviet attitude to the West for many years".⁵² Russian and Soviet attempts to modernize are driven by this fear.

3. Doctrinal Development

Doctrinal development is a second variable evidenced in this historical examination. Discussions and development of doctrine precedes the achievement of the capabilities to fulfill doctrinal changes. The revolutionary doctrinal process is characterized by force reductions accompanied by changes in military personnel. Increased emphasis on education is then stressed for the new and remaining military leaders. The stimulus to reaching the goal set by changed doctrine is economic reform. The pinnacle of modernization is new military technology.

⁵¹ *Scientific Communism, A Glossary* (Moscow, 1975).

⁵² C. N. Donnelly, *The Soviet Military Under Gorbachev* (Sandhurst, GB: Soviet Studies Research Center, December 1986), p. 10.

4. Peace Initiatives

A third trait which has been exposed is the effect these drives for modernization have had on foreign policies. During times of economic reform for modernization, Russian and Soviet policies become less aggressive. At these times peace and improved relations, especially with Western countries are sought. The leaders need a relaxation in conflicts and hostilities in order to devote their energies and the country's resources to domestic improvements and to entice Western capital. Throughout these periods, "peaceful coexistence" has been the watchword.

5. Dialectical Influence

That the Dialectical process weaves through this history is evident. All the changes in the internal composition of the country are guided by its opposite--external forces. Doctrinal changes have resulted from the outcome of events outside Imperial Russia and the Soviet Union. Once a doctrine is accepted, there always appears its negation, in the form of new circumstances or technology, to cause a negation of the existing doctrine.

The negation of the existing doctrine involves the emergence of a qualitatively new doctrine. Revolutions of military doctrine are dynamically related to economic reform and thus are also governed by the Dialectic. The history of Russia and the Soviet Union is interspersed with concurrent periods of economic reform; however, until the death of Stalin these reforms have never been instituted for their stated purpose--the betterment of life for the average citizen. In post-Stalinist time, economic reform has been intended to benefit the average citizen to a certain degree. The proclaimed goal of economic reform has been negated by its opposite--advancement of military technology--for the good of the security of the state whether that state was Imperial Russia or the Soviet Union.

Whatever security was perceived to have existed had been negated by insecurity caused by the challenge of advancing Western technology and the incapability of Imperial and Soviet domestic technology to keep pace. Changes of indigenous doctrine then were affected by new technology quests of the leadership.

Thus a full circle through the Dialectic is completed. This dynamic process continues today. Evidence exists that in the 1970s the pattern was repeating itself. The remainder of this research attempts to trace this third revolution. The elements identified as necessary for such a revolution are examined.

III. EXAMINATION OF THE THIRD REVOLUTION

Certain characteristics of traditional Soviet behavior have been identified as necessary components of a revolution in military doctrine caused by a perceived lag in their indigenous technology. While these elements are all interconnected in a dynamic relationship, they can be divided into two general categories. The historical analysis revealed that measures fall under the general divisions of either the military or the economy. The military related changes in doctrine traditionally have preceded economic reform measures. The following discussion examines the military based variables.

A. THE TECHNOLOGICAL QUEST

The motivating factor of Russian and Soviet policies has always been the quest for new technology which is seen as essential for future war. There are many new technological advances in which the West leads in development when compared to the Soviet Union. "The Russian nightmare has always been that a revolution in technology will challenge the way they've designed their forces."⁵³ Figures 1 and 2 compare 20 areas of technological advancement in 1985 and 1987 of the United States and the Soviet Union. While there are several technologies listed which the Soviets are achieving parity, in many areas they are lagging behind the United States and are losing ground. The disparity exists in such technological areas as computers and software, electronics and microelectronics, artificial intelligence and genetic engineering.

Many experts have examined the importance of such technologies and the military weakness of the Soviets from the resulting lag. Because the number of fields in which the lag exists is numerous, microcircuitry as one typical area will be examined. So called

⁵³ Quoted from Stuart Gannes, "The Soviet Lag in High-Tech Defense," *Fortune*, 25 November 1985, p. 107.

<u>Basic Technologies</u>	<u>U.S. Superiority</u>	<u>U.S./U.S.S.R. Parity</u>	<u>U.S.S.R. Superiority</u>
Computers and software	←X		
Electronic signal processing	X		
Electro-optical processing (including infrared)	X		
Life sciences (human factors/ biotechnology)	X		
Microelectronics (integrated circuits manufacturing)	X		
Production manufacturing (includes automated control)	X		
Robotics and machine intelligence	X		
Guidance and navigation	X→		
Materials (lightweight, high- strength, high temperature)	X→		
Propulsion (aerospace and ground vehicles)	X→		
Radar sensor	X→		
Submarine detection	X→		
Telecommunications (includes fiber optics)	X		
Signature reduction	X		
Aerodynamics/fluid dynamics		X	
Conventional warheads (includes all chemical explosives)		X	
Directed energy (laser)		X	
Nuclear warheads		X	
Optics		X	
Power sources (mobile) (includes energy storage)		X	

This list is limited to 20 technologies, selected (by the Department of Defense) with the objective of providing a valid base for comparing overall U.S. and U.S.S.R. basic technology. These technologies are "on the shelf" and available for application. The technologies selected have the potential for significantly changing the military capability in the next 20 years. The arrows denote that the relative technology level is changing significantly in the direction indicates. Relative comparisons of technology levels shown depict overall average standing only; countries may be superior, equal or inferior in subcategories of a given technology.

Source: Department of Defense, The FY 1985 Department of Defense Program for Research and Development (Washington, DC: Government Printing Office, 1984).

Figure 1. 1985 Technologies

<u>Basic Technologies</u>	<u>U.S. Superiority</u>	<u>U.S./U.S.S.R. Parity</u>	<u>U.S.S.R. Superiority</u>
Computers and software	←X		
Electronic signal processing	X		
Electro-optical sensors (including infrared)	X		
Life sciences (human factors/ biotechnology)	X		
Microelectronics (integrated circuits manufacturing)	X		
Production manufacturing (includes automated control)	X		
Robotics and machine intelligence	X		
Guidance and navigation	X		
Materials (lightweight, high- strength, high temperature)	X→		
Propulsion (aerospace and ground vehicles)	X→		
Radar sensor	X→		
Submarine detection	X→		
Telecommunications (includes fiber optics)	X		
Signature reduction	X		
Aerodynamics/fluid dynamics		X	
Conventional warheads (includes all chemical explosives)		X	
Directed energy (laser)		X	
Nuclear warheads		X	
Optics		X	
Power sources (mobile) (includes energy storage)		X	

This list is limited to 20 technologies, which were selected by the Department of Defense with the objective of providing a valid base for comparing overall U.S. and U.S.S.R. basic technology. The conditions which apply for Figure 1 apply to this list.

Source: Department of Defense, The FY 1987 Department of Defense Program for Research and Development (Washington, DC: Government Printing Office, 1986).

Figure 2. 1987 Technologies

"smart weapons" are made possible by microcircuitry. Warheads with a variety of conventional energy munitions that are guided to targets with no error are made possible through the use of this technology. These warheads can seek a target without external assistance and can discriminate between such potential targets as tanks and trucks.

The implications for the Soviets of such a technology are staggering. This particular technology has again raised the old specter of lagging Soviet technology. The fear is intensified because the physical concepts involved in its development are not within the Soviet inventory of capabilities. "Suddenly, out of nowhere, microelectronics is forcing the Soviets to reconsider everything they've done. It could make a 25-year investment in military technology obsolete."⁵⁴

Even though the Soviets already devote proportionally more resources to the military than the United States does, they are learning that vastly greater commitments are necessary to match the West's drive to incorporate microelectronic components into a new generation of high-technology weapons and battle management computers. The combination of microelectronics and computers is very threatening to the Soviets. "The revolution in defense microelectronic challenges the Soviets to compete on a new playing field just as they were attaining parity with the West in more traditional areas of weaponry."⁵⁵

In the changing character of "smart weapons," the effect of the Dialectic can be seen. Not only are nuclear weaponry and missile technology being negated, the negation is being caused by qualitatively new weapons based on new physical properties. In the true sense of the Dialectic, however, these outdated technologies are not disappearing from doctrinal statements altogether. A 1986 report in *Fortune* stated that the Soviet Union lags as much as *ten* years behind the West in most fields of electronics and that

⁵⁴ Ibid.

⁵⁵ Ibid.

their main preoccupation is catching up.⁵⁶ Reports of this lag continued in 1987. Of particular interest is that in the reports cited in Figures 1 and 2, the technologies selected have the potential for significantly changing the *military* capabilities of the Soviet Union in the next 10 to 20 years.

The importance of this lag in technology then is that these basic technologies are needed by both the United States and the Soviet Union for weapons based on new principles. Stubbs reported that the Soviet Union still lags behind the United States across a broad spectrum of militarily significant basic technologies.⁵⁷ He concluded that "computer hardware and microelectronics represent the most serious weakness in Soviet advanced-technologies strategic defense development."⁵⁸

The "technology gap" which the Russians and the Soviets have feared throughout their history does indeed seem to have appeared again. The possibility of the Soviet nightmare being repeated is not a surprise to the present Soviet leaders, however. The second factor of the drive for military technology within the Soviet Union, doctrinal change, dates back to the 1970s and was expressed by one man, Marshal Nikolai V. Ogarkov.

B. DOCTRINAL REVOLUTION

Warsaw Pact military scientists have long anticipated that scientific and technological progress would continue to produce important, even revolutionary, changes in military affairs. In a secret Czechoslovak document of January 1968, these scientists stated that

The revolution in military affairs is not a closed process. On the contrary, in view of the expected advance of the scientific-technical revolution, one can expect further

⁵⁶ Gene Bylinsky, "The High-Tech Race," *Fortune*, vol. 114, no. 8, pp. 28-38.

⁵⁷ Eric Stubbs, "Soviet Strategic Defense Technology," *Bulletin of the Atomic Scientists*, April 1987, pp. 14-19.

⁵⁸ *Ibid.*

important changes in military affairs in the future, the development of which with regard to the present stage may not be necessarily a mere evolutionary nature and may not merely complete the existing process.⁵⁹

More recently, evidence has been accumulating to indicate that a revolution in military affairs was occurring. That doctrinal changes were going on in the Soviet Union during the decade of the 1970s remains under discussion. While it remains at debate exactly when and what the changes were, Soviet military doctrine was under discussion in the Soviet Union during that time.⁶⁰

The general theme of the evolving Soviet military doctrine is the mastery of the large scale theater wide operations executed by multi-front operations. An attack of this form would involve two or more large strategic groupings of forces over a large geographic area. "They (the Soviets) now plan for a theater operation to consist of several fronts conducting dynamic, fast moving operations to seize strategic ground objectives located 600 to 800 kilometers away."⁶¹ These multi-front operations would require a force development and military technological support of unprecedented scale and speed. The stimulus for this change in the magnitude of Soviet operations is that the new technologies that will permit, in theory, the communications, control, and accuracy of fire support required for such operations--the type of technologies discussed in the last section.

⁵⁹ *Problems of the Party's Military Policy in Light of the 13th Congress of the Communist Party of Czechoslovakia*, lecture given by Colonel Frantisek Herfut to the highest military functionaries of the Ministry of National Defense, January 1968, p. 4.

⁶⁰ For a discussion regarding the evolution of Soviet doctrine see: Harriet Fast Scott and William F. Scott, *The Armed Forces of the U.S.S.R.*, 3d. ed. (Boulder, CO: Westview Press, 1982); Michael McGwire, *Military Objectives in Soviet Foreign Policy* (Washington, DC: The Brookings Institute, 1987); John J. Dziak, *Soviet Perceptions of Military Power: The Interaction of Theory and Practice* (New York: Crane, Russak & Company, 1981), pp. 5-29; William T. Lee and Richard F. Starr, *Soviet Military Policy Since World War II* (Stanford, CA: Hoover Institutional Press, 1986), pp. 23-40; William E. Odom, "Soviet Force Posture: Dilemmas and Directions," *Problems of Communism*, July-Aug 1985, pp. 1-14; and John G. Hines, Phillip A. Peterson and Norta Turlock, III, "Soviet Military Theory from 1945-2000: Implications for NATO," *The Washington Quarterly*, Fall 1986, pp. 117-136.

⁶¹ U.S. Department of Defense, *Soviet Military Power, 1984*, 3d ed. (Washington, DC: Government Printing Office, 1984), p. 17.

When Marshal Ogarkov became Chief of the General Staff in 1977, he inherited a military organization which by that time had achieved approximate military parity with the United States. He also came to his new position at a time when the Soviet military was making its most significant doctrinal changes since the original and second revolutions in military affairs under M. V. Frunze in the 1920s and under Marshal Sokolovskiy during the 1950s and 1960s respectively.⁶²

In 1977, shortly after Ogarkov became Chief of the General Staff, Soviet leader Leonid Brezhnev made his famous "no first use" statement regarding nuclear weapons. According to Cutshaw, "That statement promulgated new Soviet military doctrine for fighting theatre war."⁶³ As Chief of the General Staff, Ogarkov had the responsibility of overseeing the development of the strategy, plans, and direction of the organizational changes and revisions to reflect this doctrine. The Soviets would now prepare for the possibility of fighting and achieving victory in a conventional war while maintaining a preparedness to preempt enemy use of nuclear weapons.

During the late 1970s and early 1980s, Soviet doctrinal writings showed a concern for exploiting new technologies. Marshal Ogarkov had long been one of the strongest proponents of the importance of high-technology advancements. Herspring states that the need for the Soviet armed forces to understand and adapt to major advances in the scientific-technical sphere dominated Ogarkov's major writings since 1977.⁶⁴ "In addition to arguing that the scientific-technical revolution is the main factor driving the Soviet military thought," Ogarkov took an unusual step for a senior military officer, that

⁶² Dale R. Herspring, "Nikolay Ogarkov and the Scientific-Technical Revolution in Soviet Military Affairs," *Comparative Strategy*, vol. 6, no. 1, 1987, p. 29.

⁶³ Charles Q. Cutshaw, "Who's in Charge," *U.S. Naval Institute Proceedings*, April 1986, p. 81.

⁶⁴ Herspring, *Comparative Strategy*, p. 29.

"of placing his discussion in the wider context of Soviet military thought rather than in the more narrow bureaucratic framework common to most his colleagues."⁶⁵

1. The Nature of the Revolution

In 1978, Ogarkov referred to the scientific-technical revolution in military affairs as "a process . . . which creates qualitatively new weapons and military technology as well as modernizing conventional 'classical' means of combat and significantly raises their combat possibilities."⁶⁶ Ogarkov's presentation of his beliefs in the need for the scientific-technological revolution in military affairs continued with more and more urgency throughout the next several years. Doder credits Ogarkov as intellectual and highly articulate--"the prototype of a modern officer" who as a straight-forward man was prepared to assert his views both vocally and prolifically.⁶⁷

In 1982, Ogarkov wrote *Always on Guard (Ready) in Defense of the Fatherland*, here he expressed his concern about the fast pace of the development of American military technology. He said that measures must be taken to modernize strategic forces. Then he warned: "In these conditions, the failure to change views in time, and stagnation in the development and deployment of new kinds of military construction, are fraught with serious consequences."⁶⁸

Interestingly enough, though Ogarkov was "reassigned" in September 1984, his influence continued throughout the years. A *Red Star* interview in 1984 credited Ogarkov with stating that a wide-range of innovations in Western technology was making possible at least a tenfold increase in the strike potential of conventional weapons. The interview also contained the warning that awful consequences would result if

⁶⁵ Ibid.

⁶⁶ N. V. Ogarkov, "Voennaya nauka i zashchita sotsialisticheskogo otechestva" (Military science and the defense of the socialist fatherland), *Kommunist*, 1978, no. 7.

⁶⁷ Dusko Doder, *Shadows and Whispers* (New York, NY: Random House, 1986), p. 229.

⁶⁸ N. V. Ogarkov, *Vsegda v gotovnosti k zashchite otechestva* (Always ready to defend the fatherland) (Moscow: Voennizdat, 1982).

the U.S.S.R. failed to match Western technology. In November 1984, a lengthy article by Ogarkov commemorating the 40th anniversary of the Great Patriotic War, "On the 40th Anniversary of the Great Victory: Unfading Glory of Soviet Arms" appeared in *Kommunist Vooruzhennykh sil*.

More interesting, in January 1985, a new edition of *Taktika* (Tactics), the basic Soviet military text for company and field-grade officers was published. It represented the first new edition since 1966 and will be the basic text for educating Army officers through the 1990s.⁶⁹ This new edition of *Taktika* reflects Ogarkov's thinking throughout, deemphasizing nuclear weapons and placing emphasis on combined arms operations, developing initiative in junior leaders and achieving superiority through sophisticated conventional weapons technology.⁷⁰

Of even greater significance was the appearance in 1985 of *History Teaches Vigilance*, Ogarkov's book published by the Ministry of Defense. Ogarkov assures readers that "The Soviet people are doing everything necessary so that the defense capability of the Soviet state will always be at a high level and that its Armed Forces will always be on guard."⁷¹ He continued his theme of technological revolution of weapons by citing examples of how advances in weaponry in the past effectively changed the outcome of past conflicts. He brings these concepts to present terms:

A profound and, in a full sense of the word, revolutionary change in military affairs is continuing in our day in connection with further development and qualitative improvement of nuclear weapons, *rapid development of electronics and in connection with the significant qualitative improvement of conventional weapons and methods of armed conflict.*⁷²

⁶⁹ Cutshaw, p. 82.

⁷⁰ Ibid.

⁷¹ N. V. Ogarkov, *Istoriya uchit bditelnosti* (History teaches vigilance) (Moscow: Voenizdat, 1985).

⁷² Ibid.

Of importance, Ogarkov says, is understanding the full diversity of linkages and relationships in war. In the external factors he lists the development of science and technology. Enumerating the internal linkages and relationships in war, he says are "most of all, the correlation of forces of the warring parties; the technical level of their equipment and several other methods of conducting military operations which directly determine their success or failure"⁷³ Again, he issues a warning

It is particularly important to understand the dialectical process of developing military affairs at the present stage, under conditions of rapid scientific and technological progress. Tardiness in restructuring views and stagnation in working out and implementing new questions of military art and construction are fraught with serious consequence.⁷⁴

Ogarkov appears a firm proponent of the need for a scientific-technical revolution in developing new weapons. He also presents a time line for the advances. In 1981 in "Na strazhe mirnogo tuda" (On guard for peaceful work)⁷⁵ and *Always ready to defend the fatherland* (1982), he said that the revolutionary changes in major technologies occur every ten or twelve years.

2. The Revolution and the Economy

The course of the Soviet economy is an important factor in the scientific-technical revolution in military affairs. Its importance is amplified by its inclusion in the doctrinal discussions of Ogarkov. In 1978, example, Ogarkov quoted Friedrich Engels: "Nothing depends on economic conditions like a country's army and navy. Weapons, structure, organization, tactics and strategy depend above all on the level of production and the means of communication which has been achieved at a given point in time."⁷⁶

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ N. V. Ogarkov, "Na strazhe mirnogo tuda," *Kommunist*, no. 10, 1981.

⁷⁶ Ogarkov, "Voennaya nauka i zashchita sotsialisticheskogo otechestva" (Military science and the defense of the socialist fatherland), *Kommunist*, no. 7, 1978. He repeated this quote in 1984.

In "Always Ready to Defend the Fatherland," Ogarkov called for the Soviet economy to be modernized, since, in his view the level of development at that time was not adequate to solve "major technical problems" and to make it possible for new types of weapons, including those necessary for "a devastating counterattack in any situation and under any conditions" to be developed in a short period of time. In that book he also advocated a "coordinated mobilization of the military force and overall national economy." He said measures must be taken to modernize Soviet strategic forces and enhance the performance of the Soviet economy.

Even after Ogarkov's reassignment, his theories of accelerating the Soviet economy to the development of high-technology weapons continued to exert influence. "He had become dedicated to the thesis that the basis of Soviet power was the Soviet economy, and that since the economy was showing structural weaknesses, it was mandatory to take corrective steps."⁷⁷ Rice supports the conclusion that part of Ogarkov's scientific-technical revolution in military affairs was reliant upon a healthy, productive economy. "For Ogarkov and those like him, the end product of the modernized Soviet economy will be high-technological weapons. Modern weapons which will be fought with precision-guided munitions and reconnaissance drones."⁷⁸

Soviet Colonel General M. A. Gareyev's book, *M. V. Frunze: Voennyi teoretik*, published in 1985, supports the argument that without improvement in the technological base of the entire economy, the Soviet military will be hard-pressed to take advantage of the new opportunities being offered by the advancement of modern tech-

See Ogarkov, "Zashchita sotsializma: opyt istorii i sovremennost" (The defense of socialism: the experience of history and the present), *Krasnaya zvezda*, 9 May 1984.

⁷⁷ Doder, p. 229.

⁷⁸ Condoleezza Rice, "The Soviet Military under Gorbachev," *Current History*, October 1986, p. 314.

nologies. He noted that basic improvements in the economy must be made so that the Soviet Union can support "the highest order military technical tasks."

An important aspect of the interrelation between a modernized economy and the high-technical results for the military appeared in Ogarkov's writings. This aspect may have given many in the military and their supporters some reasons to seek Ogarkov's reassignment. As Azrael puts it: "To make matters worse he was also something of an iconoclast with respect to the Soviet military's long-standing preference for 'tried and true' weaponry."⁷⁹

Coupled with his firm belief in the scientific-technical revolution in military affairs, this divergence away from the "tried and true" would lead to qualitative changes in conventional weapons which in turn would effect the rapid obsolescence of many of the existing weapons systems that many members of the high command continued to demand in extravagant numbers despite the fact that the resources used to meet their demands continued to draw heavily on the economy. These demands were also using resources which could be put to use exploring and developing high-tech weapons and futuristic weapons based on new principles. This attitude of Ogarkov's suggests that he would support cuts in expenditures for the procurement of many costly "off-the-shelf" systems. This suggestion is contrary to many speculations at the time of his dismissal to the effect that the reassignment was related to his vocal demands for increased defense expenditures. If this contrary opinion is true, it too could have contributed to a movement to "silence" the Marshal.

Even after his reassignment to other duties, Ogarkov continued to express his opinions about "off-the-shelf" procurement practices. In 1985 he said that a "graphic manifestation of the law of the negation of the negation" was when new equipment and

⁷⁹ Jeremy R. Azrael, *The Soviet Civilian Leadership and the Military High Command, 1976-86* (Santa Monica, CA: The Rand Corporation, 1987), p. vi.

weapons "crimp and negate old equipment and weapons generation after generation."⁸⁰ He went further in stating that experience showed that the extent of the negation differed from situation to situation: "In some cases the elimination of that which is obsolete, out-of-date and retarding further progress is accomplished while retaining some foundations of the existing ones."⁸¹ He even suggested that there were times when "modifications"--a Soviet technique for modernizing their weapons--no longer gave the desired result.

In 1986 while Ogarkov himself appeared to remain in silence, others were not. In *The Creative Nature of Soviet Military Science in the Great Patriotic War*, Gareyev echoed the former Chief of the General Staff in reflecting the military's concern that the Soviet Union is falling far behind the West in computers and electronics, those things which are profoundly changing warfare. Gareyev said that he realizes that the Soviet Union is falling further behind in these areas. "We are opposing enemies considerable more powerful economically than ever before."⁸² This economic threat to the U.S.S.R. he says is coming from Western electronics technology which is revolutionizing warfare.

C. MILITARY REORGANIZATION

During the years of rapid succession of Soviet leaders in the 1980s, some restructuring of military leadership at all levels of the chain of command was expected. What is striking about the changes which took place in the military is the number of changes and the background experience of those men assigned to top leadership positions. The third ingredient necessary for a true revolution in military affairs, that of restructure in the military organization, is present in the case under discussion.

⁸⁰ Ogarkov, *History Teaches Vigilance*.

⁸¹ Ibid.

⁸² M. A. Gareyev, "The Creative Nature of Soviet Military Science in the Great Patriotic War," *Voyenno-istoricheskiy zhurnal*, 1985. Translated in *Soviet Press*, Selected Translations, Mar-Apr 1986, p. 4.

The reshuffle of top command personnel in the Soviet Union began in May 1984. During that month Colonel General S. F. Romanov took over as Senior Soviet representative to the Joint Command of the Warsaw Pact Forces in East Germany.⁸³ Romanov died on May 22 and in October Colonel General V. K. Meretskov who had commanded the North Caucasian Military District was identified as his replacement.⁸⁴

Meanwhile a promotion had been noted to the ranks of those serving in the Defense Ministry. Before his election to the Supreme Soviet on March 4, 1984, Marshal K. S. Moskalenko, who turned 82 on May 11, 1984, had not made a public appearance since April 1983.⁸⁵ While he still signed important obituaries and still served as Inspector General, his position in the lists of such signatures suggested he was no longer a deputy defense minister.⁸⁶ Clarification came when then General of the Army V. L. Govorov (59), who had until then served as commander of the Troops of the Far East, was identified as a Deputy Minister of Defense in June, and as Inspector General on 1 September.⁸⁷ Moskalenko retired to the ranks of the Ministry of Defense's General Inspectorate and died on 17 June.⁸⁸

The next major "reassignment" was obviously of great political significance. On September 7, the Soviet press announced that Marshal Ogarkov, who as Chief of the General Staff had captured world attention by his public defenses of the KAL flight 007 incident and the Soviet's withdrawal from the Geneva arms talks, had been "assigned to

⁸³ David R. Jones, ed., *Soviet Armed Forces Review Annual (SAFRA)*, vol. 9 (Gulf Breeze, FL: Academic International Press, 1986), p. 8.

⁸⁴ Ibid.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ Ibid, p. 9.

other work."⁸⁹ The prevailing speculation in 1984 was that Ogarkov was disgraced and dismissed for "unparty-like behavior." This behavior, it was speculated, resulted from his vocal support and demands for increased defense expenditures at a time when economic stagnation and malaise was occupying the Party's attention.⁹⁰

Ogarkov was replaced by his first deputy, Marshal Sergei F. Akhromeyev.⁹¹ The speculation in 1986 about the new Chief of the General Staff was that as a protege of former Defense Minister Ustinov and a deputy of Ogarkov, he would lean toward the policies of Ogarkov more than toward those of Ustinov.⁹² Supporting this speculation, Cutshaw cites rumors that Akhromeyev may have been brought into the senior ranks of Soviet military hierarchy by Ogarkov.⁹³ Cutshaw concludes that "the prognosis for Akhromeyev having any great impact on the Soviet military is doubtful."⁹⁴

During 1987, one major function of the Chief of the General Staff has been to serve on the Soviet's intermediate nuclear forces (INF) arms control negotiation team.⁹⁵ In East European military circles Marshal Akhromeyev is rated as the ablest possible officer to have succeeded Marshal Ogarkov and is identified as an unconditional supporter

⁸⁹ For discussions regarding Ogarkov's replacement and speculation as to the reasons, see: *SAFRA*, vol. 8 and vol 9; Dale R. Herspring, "The Soviet Military in the Aftermath of the 27th Party Congress," *Orbis*, Summer 1986, pp. 297-315; Charles Q. Cutshaw, "Who's in Charge," *U.S. Naval Institute Proceedings*, April 1986, pp. 79-83; Brian Crozier, "The Ogarkov Factor," *National Review*, 5 June 1987, p. 22; Mikhail Heller and Aleksandr M. Nekrich, *Utopia in Power* (New York, NY: Summit Books, 1986), pp. 719-720; Roman Kolkowicz and Ellen Propper Mickiewicz, ed., *The Soviet Calculus of Nuclear War* (Lexington, KY: D.C. Heath and Company, 1986), pp. 86-93; and Michael McGwire, *Military Objectives in Soviet Foreign Policy* (Washington, DC: The Brookings Institute, 1987), pp. 311-312.

⁹⁰ *SAFRA*, vol. 9, p. 10.

⁹¹ Herspring, *Orbis*, p. 299.

⁹² *Ibid*, p. 300.

⁹³ *Ibid*, p. 299.

⁹⁴ Cutshaw, p. 82.

⁹⁵ Bill Keller, "Gorbachev Looking at More Accords," *New York Times*, 3 March 1987; and Felicity Barringer, "Russian Optimistic on Missile Accord," *New York Times*, 24 July 1987.

of the latter's military doctrine.⁹⁶ It appears that he supports Ogarkov's view of offensive operations using state-of-the-art conventional weapons, and not nuclear weapons, in decisively deciding a future war.⁹⁷

Of interest also are the events surrounding the appointment, then forced retirement of Marshal Sergei L. Sokolov. In December 1984 Minister of Defense Dmitry Ustinov died. His death, following as it did on Ogarkov's "demotion" seemed at the time to leave the armed forces in a relatively weak position in Kremlin decision-making circles. This condition continued throughout the term of Marshal Sokolov and remains today.

Sokolov was clearly a transitional figure, one of the older generation chosen at a time when the predicted successor, Ogarkov, was in disfavor. Throughout Sokolov's tenure as Minister of Defense, he remained a candidate (non-voting) member of the Politburo. He was voted to that status in June 1985, several months after his appointment as Defense Minister. That he was never appointed to full membership status of the Politburo of the Central Committee was seen as the Party's way of exerting supremacy over the military leadership. The fact that Sokolov was 73 years old at the time of his appointment also lends credence to the theory that his tenure would not be marked by a strong influence over Soviet defense matters.⁹⁸

On May 30, 1987 at a meeting of the Politburo of the CPSU Central Committee, the discussion centered around the penetration and violation of Soviet air defenses and subsequent landing in Red Square of a plane piloted by M. Rust, a citizen of the Federal Republic of Germany.⁹⁹ This event served as a useful excuse to initiate more major changes in the military leadership to bring it more directly under Gorbachev's control.

⁹⁶ *International Defense Review*, vol. 20, no. 6/1987, p. 718.

⁹⁷ *Ibid.*

⁹⁸ Cutshaw, p. 81.

⁹⁹ *Krasnaya zvezda*, 31 May 1987.

The Presidium of the Supreme Soviet of the U.S.S.R. relieved Marshal Sergei L. Sokolov "from his duties as U.S.S.R. Minister of Defense in connection with his retirement."¹⁰⁰ Sokolov was replaced by Army General Dmitri T. Yazov.¹⁰¹ Several senior officers with greater political experience were bypassed by Yazov's selection.¹⁰² Yazov is identified as a candidate member of the CPSU Central Committee.¹⁰³

Figure 3 chronicles the top military leadership changes in the Soviet Union from 1984 to 1987. It is not possible to describe all the changes in the Soviet military caused by the reassignments at the top and the associated ripple effect of those changes to all levels of the chain of command. A description of restructuring in the military organization is further clouded by the Soviet tendency to vagueness and their propensity not to publish all changes. Certain generalizations can be made, however, when describing the most recent restructuring of the military organization.

The most obvious result of the change is the promotion of a younger generation of men to the military hierarchy. These men are replacing those with World War II and immediate post-World War II experience. The generations being replaced were trained and fought under the doctrine evolved in the Second Revolution. Third Revolution doctrinal changes require men whose experience is in the theater of operations scale utilizing conventional and strategic weapons.

The promotion of General Yazov is a prime example of the second element of the military reorganization. As stated above, Yazov was promoted to the position of Minister of Defense over several senior officers. A brief chronology of his experience

¹⁰⁰ Ibid.

¹⁰¹ For information regarding the special meeting of the Politburo and the declaration of both the Central Committee and the Presidium of the Soviet Union see: *Krasnaya zvezda*, 31 May 1987, p. 1; *Soviet Analyst*, 3 June 1987, pp. 1-2; and *International Defense Review*, vol. 20, no. 6/1987, p. 718.

¹⁰² *Soviet Analyst*, 3 June 1987, p. 1.

¹⁰³ Ibid.

PRIOR TO 1985

Gen. I. M. Tretyak	CO, Far Eastern Force
D. Ustinov	Minister of Defense
(died, 1984)	
Marshal S. L. Sokolov	Minister of Defense
Army Gen. A. A. Yepishev	Chief, Main Political Administration
Marshal A. I. Koldunov	CO, Air Defense
Marshal V. F. Tolubko	CO, Strategic Rocket Forces
Col. Gen. S. F. Romanov	Joint Command Warsaw Pact Forces
(died, 1984)	East Germany
Col. Gen. V. K. Meretskov	Warsaw Pact Forces East Germany
(assigned, 1984)	
Gen. V. L. Govorov	Chief, Main Inspectorate
(assigned, 1984)	
Marshal N. V. Ogarkov	Chief of the General Staff
(relieved of duty, 1984)	
Marshal S. F. Akhromeyev	Chief of the General Staff
Admiral S. G. Gorshkov	CO, Navy
(assigned, 1967)	
Gen. A. T. Altunin	Deputy Minister for Civil Defense
(assigned, 1972)	
Gen. I. A. Gerasimov	CO, Southern TVD
(assigned, 1984)	
Gen. I. M. Tretyak	CO, Far Eastern Forces
Gen. D. T. Yazov	CO, Far Eastern TVD

1985

Gen. A. D. Lizichev	Chief, Main Political Administration
Gen. Y. P. Maksimov	CO, Strategic Rocket Forces
Gen. M. M. Zaytsev	CO, Southern TVD
Admiral V. N. Chernavin	CO, Navy
Gen. P. G. Lushev	CO, Group of Soviet Forces Germany
Marshal V. I. Petrov	1st Deputy Minister of Defense

1986

Gen. P. G. Lushev	1st Deputy Minister of Defense
Gen. V. A. Belikov	CO, Group of Soviet Forces Germany
Gen. V. L. Govorov	Deputy Minister of Defense and
	Chief, Civil Defense

Figure 3. Leadership Changes (1984-1987)

Marshal A. I. Koldunov
Gen. I. M. Tretyak

CO, Air Defense
Main Inspectorate

1987

Gen. D. T. Yazov

Deputy Minister of Defense
for Personnel

Gen. D. T. Yazov

Minister of Defense

Marshal A. I. Koldunov

CO, Air Defense

(relieved of duty, 1987)

Figure 4. Leadership Changes (Cont'd.)

does identify him as a top contender for advancement. He joined the Soviet army in 1941, graduated from the M. V. Frunze Academy in 1956 and from the U.S.S.R. Armed Forces General Staff Military Academy in 1967. He is characterized as a "professional servicing officer."¹⁰⁴ It is the following experience which marked him for unusual promotion opportunities. Yazov served as First Deputy Commander of the Far Eastern Military District in the late 1970s, commanded the Central Asian Military District from 1980 to 1984 and returned to the Far Eastern district as commander after that. His importance is seen in his experience with multi-front operation.

The importance of the promotion of men with multi-front operation or theater of strategic operation experience can be seen being supported by the Party in two specific occurrences--the Twenty-sixth Party Congress in 1981 and the Twenty-seventh Party Congress in 1986. In 1981 General Govorov was elected a Central Committee member on the grounds of the post he filled. This post was one restored in November

¹⁰⁴ *Soviet Analyst*, 3 June 1987, p. 1.

1980--commander in chief of Far Eastern Forces.¹⁰⁵ This restoration was seen as a forerunner of the next important occurrence.

In 1986 at the Twenty-seventh Party Congress, the inclusion of the three commanders in chief of the forces in the Western, Southwestern and Southern strategic military system in the composition of military representatives on the Central Committee and the Central Auditing Commission was seen as an important event.¹⁰⁶ The outcome of these moves is that all theater of strategic military actions (TVDA) commanders are now full Central Committee members, "a clear sign that they have been granted a greater role in Soviet military planning."¹⁰⁷ Indeed these changes--the promotions and the creation of the new posts--serve as indicators of the doctrinal change.

A third trait is highlighted by the absence of vocal and vigorous doctrinal discussions. An examination of current Soviet publications reveals a dearth of military policy proclamations and an almost non-recognition of the military by the party leadership. This factor can be seen as an attempt by the party to draw western attention away from Soviet military matters. This measure can also be seen as a tactic similar to the large Soviet force reductions in the past and an invoking of the cliché, "out of sight, out of mind."

¹⁰⁵ *Radio Liberty Research Bulletin*, 27 March 1986, p. 3.

¹⁰⁶ *Ibid.*

¹⁰⁷ Herspring, *Orbis*, p. 303.

IV. EXAMINATION OF THE FACTOR OF ECONOMIC REFORM

The comparison of the suspected current dialectical evolution has thus far concentrated on the military aspects: the perceived threat from advancing Western technology, faltering Soviet military technology, changes in military doctrine and the ensuing reorganization of military leadership. The next step is to examine subsequent economic reforms and proposed peace initiatives linked to this military stimulus. The next feature of the process is currently expressed in the economic reform policies of M. Gorbachev, but did not start with him. They started with the years of succession in the early 1980s which followed the doctrinal changes of the 1970s.

A. THE YEARS OF PARTY SUCCESSION

In order to understand the economic reforms of Gorbachev, certain factors of his inheritance must be examined. When Mikhail S. Gorbachev ascended to the position of General Secretary of the CPSU in March 1985, he inherited many things from Brezhnev, Andropov and Chernenko.¹⁰⁸

Leonid Brezhnev died on November 10, 1982 and was succeeded by Yuri Andropov. Andropov, who was 68 at that time, was elected as General Secretary of the CPSU on 12 November.¹⁰⁹ Andropov was reported to be ill at the time of his appointment, disappeared from public view in September 1983 and died in February 1984.¹¹⁰ With the

¹⁰⁸ For discussions on Gorbachev's inheritance see: Hans-Joachim Veen, ed., *From Brezhnev to Gorbachev* (New York, NY: St. Martin's Press, 1984); Robert F. Byrnes, ed., *After Brezhnev: Sources of Soviet Conduct in the 1980s* (Bloomington, IN: Indiana University Press, 1983); Jonathan Steele, *Soviet Power* (New York, NY: Simon and Schuster, 1983); *The Soviet Union, 1984/85, Events, Problems, Perspectives*, edited by the Federal Institute for East European and International Studies (Boulder, CO: Westview Press, 1986); Dusko Doder, *Shadows and Whispers* (New York, NY: Random House, 1986); and Mikhail Heller and Aleksandr M. Nekrich, *Utopia in Power* (New York, NY: Summit Books, 1986), chps. 11 and 12.

¹⁰⁹ Heller and Nekrich, pp. 724-728.

¹¹⁰ *Ibid.*

election of Konstanin Chernenko as General Secretary on February 13, replacing the gap left by Andropov, the old guard appeared to be exerting one last attempt to control the Party.¹¹¹ At the time of his election, however, Chernenko was 73 and fated to a reign similar to Andropov's. On March 10, 1985 Konstanin Chernenko died.¹¹²

Chernenko is considered to have been basically a caretaker during his brief tenure; Andropov is credited to have made a lasting impact on the future of the Soviet Union. One of the most important legacies resulted in the selection of the next General Secretary. On March 11, 1985, Mikhail S. Gorbachev was elected General Secretary of the CPSU Central Committee.¹¹³

B. THE ANDRÓPOV LEGACY

Mikhail S. Gorbachev is considered a protege of Yuri Andropov and is reported to have had power even before his ascension to the pinnacle of Soviet leadership. It was clear that during Andropov's time in power that Gorbachev was being groomed for succession.¹¹⁴ Medvedev states: "It was well known in the Soviet Union and abroad that Gorbachev had been second in command in the Soviet leadership since Andropov's death."¹¹⁵ The two men had shared the same ideas for a number of years about the urgent need for modernization. Speculation exists about meetings between Andropov and the then regional party chief, Gorbachev, during Andropov's visits to the spas for treatment in Gorbachev's region.¹¹⁶

111 Doder, pp. 18-19.

112 Heller and Nekrich, pp. 724-728.

113 Ibid., p. 756.

114 Zhores A. Medvedev, *Gorbachev* (New York, NY: W. W. Norton & Company, 1986), pp. 6-7; and Christian Schmidt-Hauer, *Gorbachev: The Path to Power* (Topsfield, MA: Salem House Publishers, 1986), pp. 16, 63-65.

115 Medvedev, p. 6-7.

116 Schmidt-Hauer, p. 64.

Two additional events suggest that Gorbachev benefitted from a powerful patron. His rise through party positions more rapidly than anyone since Stalin's death is one factor. A second indication of high party support is that when Gorbachev was assigned as the Central Committee Secretary for Agriculture, he had never managed the Central Committee Department for Agriculture, an occurrence which went against normal party procedures.¹¹⁷

Gorbachev inherited more than just Andropov's tutelage, however. He inherited the legacy of an economy and a country with much wrong with it.

C. THE ECONOMIC INHERITANCE

At the end of the Brezhnev era, the Soviet economy was in a crisis. No less authority than *Pravda* summed up the "negative phenomena" that were producing the devastating effects of "violations of labor discipline, embezzlement and bribe taking, profiteering and sponging, drunkenness and hooliganism, displays of private-property and money grubbing psychology, toadyism and servility."¹¹⁸

The predictions for the future of the Soviet Union in the 1980s are many.¹¹⁹ The consensus is that the Soviet leaders faced unprecedented conditions of resource limitations in the 1980s as the growth of the economy slackened and as resource expectations and demands of the various claimants on the nation's output expanded. The predictions of such authors as Hosking, Byrnes, Heller and Nekrich have been borne true by statistics. The gross national product (GNP) has grown on the average of about 2.2 percent annually since the middle 1970s, only half the rate for the previous decade. These sta-

¹¹⁷ Ibid.

¹¹⁸ Quoted in Timothy J. Colton, *The Dilemma of Reforms in the Soviet Union* (New York, NY: Council on Foreign Relations, 1986, rev. ed.), p. 33.

¹¹⁹ See: *After Brezhnev: Sources of Soviet Conduct in the 1980s*, chp. 2 and 8; *The Soviet Union, 1984-85*; Heller and Nekrich, chp. 11, 12, and 13; *From Brezhnev to Gorbachev*; and Geoffrey Hosking, *The First Socialist Society* (Cambridge, MA: Harvard University Press, 1985), chp. 15.

tistics confirm that the grave problems inherited by Gorbachev are on even a larger scale.¹²⁰

Another sign of trouble is the virtual halt to improvement in consumer standards. Between 1956 and 1965, there was an average 3 percent increase per year. After the next decade saw an annual growth of per capita consumption of closer to 4 percent, the annual growth of per capita consumption has fallen to less than 1.5 percent since 1976. In 1985, it was about one-half of 1 percent.

Yuri Andropov is credited as being aware of the systemic crisis which was gripping the Soviet Union. His experience as head of the KGB was instrumental in his enlightenment. During his tenure as KGB chief, that organization and consequently Andropov himself had increased, in-depth contact with the Western world. Andropov eventually had a greater working knowledge of the enemies of socialism than most party leaders during the same time and since then. What he learned, he brought with him when he became General Secretary.

To fill in the gaps in Soviet industrial-military technology, Andropov's organization increasingly emphasized the under-the-table acquisition of scientific texts, plans for new equipment, and actual samples of high-technology items. The future leader of the Soviet Union was made very aware of the strides of Western technology and the great inability of the Soviets to attain comparable technology. The development of personnel under Andropov reflected the impact of this knowledge. "These bright executive-type KGB people are specialists in a variety of scientific-industrial fields. They are socially adaptable and well equipped to talk shop with scientists at conventions, in social settings or

¹²⁰ U.S., Congress. Subcommittee on Economic Resources, Competitiveness, and Security Economics of the Joint Economic Committee, *Allocation of Resources in the Soviet Union and China--1985*, 99th Cong., 2d sess., 19 March 1986 (Washington, DC: Government Printing Office, 1986).

in other relaxed environments that encourage all-too-free conversations."¹²¹ These activities reflected the changing KGB target areas abroad toward technology.

Before becoming General Secretary, Andropov set priorities at supporting the changing military doctrine using the resources at his command. When he became General Secretary in 1982, he knew of the inadequacies of the Soviet system to compete with, much less destroy, the forces of capitalism. Andropov was the first Soviet leader to inherit a superpower whose military strength equalled that of its rival. He was also better informed than anyone else how the many and varied ills of the Soviet economy undermined their military strength. The reforms he introduced were aimed at correcting what he saw as the main cause of the disease and its related symptoms. His reforms were based on his experiences as KGB chairman which were successful for him then--discipline, anti-corruption campaigns and purges.

In his campaign to strengthen the Soviet Union, Andropov failed to take into account two very pressing factors--his age and his health. Seventeen months after ascending to the position of General Secretary, Andropov passed on the reigns of control.

D. THE DEFENSE INHERITANCE

Abraham S. Becker discusses the other burden which Gorbachev inherited from his three predecessors, that of Soviet defense expenditures.¹²² While there is still a debate concerning the quantity of the Soviet defense expenditures and their growth during the Brezhnev era, the fact remains that the Soviets did expend great amounts of resources to build up their military during that period. The prime goals of the economic system implanted on the U.S.S.R. by Stalin were the growth of Soviet military power along with

¹²¹ Martin Ebon, *The Andropov File* (New York, NY: McGraw-Hill Book Company, 1983), p. 81.

¹²² Abraham S. Becker, *Sitting on Bayonets: The Soviet Defense Burden and the Slowdown of Soviet Defense Spending* (Santa Monica, CA: The Rand Corporation, 1986).

the growth of the economic foundations on which it rested.¹²³ The Soviet leadership has long been anxious to create a strong military base to offset its economic weakness. "This weakness induces the Soviet leadership to expend ever increasing amounts of the country's resources required to fulfill plans for armaments and the armed forces."¹²⁴

It is evident, however, that only a major commitment of resources between 1961 and 1981 has enabled the Soviet Union to attain strategic parity with the United States, maintain large well-equipped forces in Europe and along the frontier with China, extend the deployment of the Soviet Navy throughout the world, and engage in continuous modernization of arms and equipment.¹²⁵ A military effort of this scale necessarily has far-reaching impact on the Soviet economy.¹²⁶

Western estimates indicate a decrease of the Soviet GNP from 6 or 7 percent a year in the 1950s to 5 percent in the 1960s and to under 4 percent in the 1970s.¹²⁷ The GNP of the United States grew at a rate of 4 percent annually in the 1960s and 2.9 percent in the 1970s.¹²⁸

While experiencing a decline in their GNP, over the same time frame, the Soviets engaged in building up their military forces. "At the conservative estimate of 4 to 5 percent growth per year, total Soviet military expenditures must have increased between 2.2 and 2.7 times over the 20 years."¹²⁹

123 Ibid., p. 37.

124 Heller and Nekrich, p. 643.

125 David Holloway, *War, Militarism and the Soviet State*, working paper no. 17 (New York: Institute for World Order, Incorporated, 1981), p. 2.

126 Ibid.

127 Becker, p. 1.

128 United States, President's Commission for a National Agenda for the Eighties, Panel on the American Economy: Employment, Productivity and Inflation, *The American Economy: Employment, Productivity and Inflation in the Eighties* (Washington, DC: Government Printing Office, 1980), pp. 3-4.

129 Becker, p. 1.

Thus the Soviet Union has amassed military power roughly comparable to that of the United States, even though its Gross National Product was only about half as large during the corresponding time. It is these expenditures which in turn continue to weaken the Soviet economy. The sluggish economic growth of the Soviet Union imperils future military power by slowing the development of its economic underpinnings.

E. THE OGARKOV FACTOR

The last aspect of Gorbachev's inheritance is not as obvious as the others were. It is quite apparent that Gorbachev succeeded to the position of leadership of a country that was in the grip of systemic economic and psychological crisis caused by the characteristics of that system itself. That there had been a spectacular growth of Soviet military power and that this power is an imperative for the Soviet Union is also obvious. The discussion of the choice of "guns or butter" has been of importance for the Soviet leadership since the last years of Brezhnev. The last aspect of the inheritance can be found in this discussion.

As has been stated, Ogarkov's dismissal as Chief of the General Staff in 1984 was thought in the West at the time to have been the result of his outspoken demands for increased defense expenditures at a time of economic restraints, consumer unrest, and reduced resources. Where Ogarkov was assigned indicates a different interpretation.

In the weeks following his dismissal, Marshal Ogarkov made several appearances that left little doubt that his destination was not to be that of those who had been dismissed in the past or would be in the future. It was clear that he was not to become a "non-person".¹³⁰ Discussion goes on as to exactly what position Ogarkov was assigned to and what his duties are. Whether he was assigned to the position of Commander-in-

¹³⁰ On October 12, 1984, Ogarkov appeared in East Berlin and met with Erich Honecker, the East German leader. Although not reported in the Soviet press, this meeting was prominently reported on East German television and in *Neues Deutschland* (see *New York Times*, 14 October 1984, p. A 17).

Chief of the Western TVD (Europe) or to a forward deployed headquarters of the supreme high command itself or to the position of deputy minister of defense (top military advisor to Gorbachev), the consensus is that rather than actual punishment, the reassignment reflects more a recognition of his views of a future war and advancement of resource allocation decisions which must meet the rapidly changing high technology requirements of that future war.¹³¹

Azrael sees Ogarkov's reassignment as an opportunity for the Marshal to preside over the activation of one of the most important of the multi-front headquarters that had been recently established at his own instigation.¹³² In *Always Ready to Defend the Fatherland*, published in 1982, Ogarkov lists "the complication of the process of command and control (*upravleniya*) of troops and forces which demands a principally new approach to the organizational structure of specific systems of command and control and of obtaining from them the necessary contemporary technological means of management."¹³³

F. GORBACHEV'S ECONOMIC REFORMS

Mikhail Gorbachev inherited a souring economy, featuring slow growth rates, technological backwardness and an unmanageable crisis in agriculture, which contributed to a general social malaise, evidenced by rampant alcoholism and corruption, low birth rates, and a decline in morale. What he brought to the position was a whole new agenda for reform within the Soviet Union.

¹³¹ John G. Hines and Phillip A. Peterson, "Changing the Soviet System of Control," *International Defense Review*, vol. 19, no. 3/1986, p. 282; Jeremy R. Azrael, *The Soviet Civilian Leadership and the Military High Command, 1976-86* (Santa Monica, CA: The Rand Corporation, 1987), and Crozier, p. 22.

¹³² Azrael, p. 36.

¹³³ Ogarkov, *Vsegda v gotovnosti k zashchite otechestva* (Always Ready to Defend the Fatherland).

Gorbachev's program for reform has its own language. The terms *glasnost* (openness), *perestroika* (restructuring) and *uskorenie* (acceleration) have become the watch words for the Soviet press and leadership and for the Western world in general. *Glasnost* has received the greatest attention both in the West and in the Soviet Union mainly because of its implications for a closed society. The concept of "acceleration", carries even greater implications for the West because it acknowledges the increasing gap in many important areas between the U.S.S.R. and the West. It calls for a reversal of existing trends by "restructuring" the economy, intensive (rather than extensive) development, technological retooling, and massive change in popular attitudes.

What Gorbachev has actually been calling for in the past two years is formulated on the "concept of accelerating the country's social and economic development on the basis of scientific and technological progress."¹³⁴ Many experts have likened Gorbachev's economic reforms to those of Andropov. Andropov only had time to institute the discipline, anti-drunkenness portion of his economic reform campaign which proved to be ultimately less wide-ranging, goal-, resource-, and productivity-oriented than Gorbachev's.¹³⁵ While Gorbachev's policies are clearly reminiscent of Andropov's, they go beyond them.

More important than examining the individual measures, however, is the examination of the expected accumulated outcome of these reforms. The ultimate goal of these reforms is to change the shape of the technological future of the world.

Looking to the future he (Gorbachev) seems to dread the specter of technological backwardness--not only, or even primarily because of what it could imply for the East-West military balance but because of what it would imply for the Soviet Union's broader claim to superpower status and hence for the legitimacy of the Soviet system.¹³⁶

¹³⁴ *Pravda*, 12 June 1985.

¹³⁵ *The Soviet Union, 1984/85*, pp. 134-137.

¹³⁶ Azrael, p. 41.

The age-old threat from advancing Western technology is once again acknowledged.

Equally problematic, from the viewpoint of the Soviet leadership, is the challenge posed in the high-technology area of robotics, supercomputers, lasers, optics, telecommunications, and so on, where the U.S.S.R. is in danger of falling increasingly behind the West. In the narrower, strictly military sense, there is the threat that 'smart' battlefield weapons and advanced detection systems could neutralize the U.S.S.R.'s quantitative advantages in military hardware.¹³⁷

Gorbachev, himself, has seen the importance of technology in the Soviet future. He has admitted that the most alarming prospect for the Soviets is that they have begun to lag behind in scientific and technical development. In 1985, he said, "Microelectronics, computer technology, instrument making and the entire information-science industry are the catalyst of progress. They require accelerated development."¹³⁸

In his political report at the beginning of the 27th Party Congress, Gorbachev set the tone, theme and course for the Congress. "The 27th CPSU Congress has convened at a major turning point in the life of the country and of today's world as a whole."¹³⁹ The strategy of the turning point is "accelerating the country's social and economic development . . ."¹⁴⁰ The essence of acceleration "is a new quality of growth: the all-round intensification of production on the basis of scientific and technical process, the restructuring of the economy, and the effective forms of management, of organizing labor and of providing incentives."¹⁴¹ The reforms of Gorbachev do indeed seem to be linked to an awareness of a loss of important ground for the Soviets in the area of high technology.

¹³⁷ Paul Kennedy, "What Gorbachev is Up Against," *The Atlantic Monthly*, June 1987, p. 33.

¹³⁸ M. S. Gorbachev, report to CPSU Central Committee on 11 June 1985, published in *Pravda*, 12 June 1985. Translated in *The Current Digest of the Soviet Press*, vol. XXXVII, no. 23, 3 July 1985, p. 4.

¹³⁹ M. S. Gorbachev, Political Report of the CPSU Central Committee to the 27th Congress of the Communist Party of the Soviet Union on 25 February 1986, *Pravda*, 26 February 1986. Translated in *The Current Digest of the Soviet Press*, vol. XXXVIII, no. 8, 26 March 1986, p. 4.

¹⁴⁰ *Ibid.*, p. 11.

¹⁴¹ *Ibid.*

The reforms are also linked to the fact that what worked in the past will not work in the future. For example, in a Gorbachev speech to the party leadership in Khabarovsk, he said:

The current restructuring embraces not only the economy but all other facets of public life: social relations, the political system, the spiritual and ideological sphere, and the style and methods of the work of the party and all our cadres. "Restructuring" is a capacious word. I would equate the word "restructuring" with the word "revolution" . . .

There will be no move forward if we seek the answers to new questions in the economy and in technology by looking to the experience of the thirties, forties, fifties or even sixties and seventies. This is a different time, with different demands and different requirements.¹⁴²

At a June 1986 meeting of the Central Committee, Gorbachev continued to advance the idea that the Soviets could no longer rely on past technologies: "We cannot allow billions to be invested in obsolete projects that are based on technically unfit solution."¹⁴³ Gorbachev has become aware of the fact that while the countries in the West were reorganizing their economies to save resources and make full use of the latest technological achievements, the U.S.S.R squandered its rich natural resources in wasteful, outmoded production processes or in exporting them to earn hard currency, not to modernize industry, but merely to cope with current demands.

The time frame for the economic reforms is also of interest. Gorbachev's major changes would not be made until the late 1990s or early 2000s.¹⁴⁴ The results of the modernization on the Soviet economy as a whole is not expected to be fully in effect until the end of the new fifteen-year plan. There appears to be coincidence in the time frames stated by Western technological experts and the high Soviet leadership.

¹⁴² Speech to the Khabarovsk party *actif* on 31 July 1986, *Pravda*, 2 August 1986. Translated in *The Current Digest of the Soviet Press*, vol. XXXVIII, no. 31, 3 September 1986, pp. 1-3.

¹⁴³ *Pravda*, 17 June 1986.

¹⁴⁴ Quoted in *Soviet Analyst*, vol. 16, no. 5, 11 March 1987, p. 7.

G. THE PEACE INITIATIVE VARIABLE

The final component identified in the historical perspective was peace initiatives.

The underlying reasons for those peace moves had always been the same:

1. a reduction of world tensions which allowed the Soviets to redirect resource allocations--typically away from debilitating military expenditures toward achieving necessary economic advances;
2. an increased interaction with more advanced countries resulting from the lessened tensions--the ultimate goal of which is the exchange and acquisition of ultramodern technology, scientific and educational exchanges, and joint adventures whose benefits, though touted as "mutual" are mostly gained by the Soviets;
3. a diversion of attention away from the real benefactor of Soviet economic reform--the military;
4. the achievement of a degree of success of economic reforms;
5. a qualitative advance in areas of military high technology which was originally identified as antiquated or non-existent.

Similar peace offers and campaigns exist in relation to the Third Revolution. These factors were not apparent at the onset. The early years of the evolutionary process was characterized by the uncertainty and ills of the time. Detente was collapsing, Brezhnev was ill and just hanging on. The rapid succession of the subsequent leaders did not allow for major policy proclamations of any sort. Ultimately the reaction to the fear that the United States was once again outstripping the U.S.S.R. not only in current military capabilities but also in new technologies with significant future military potential was spurred by the massive American military buildup of President Reagan.

The tenor of Gorbachev's peace moves showed up almost immediately after his succession. In a speech to the CPSU Central Committee on 11 March 1985, Gorbachev said, "In the field of foreign policy our course is clear and consistent. It is the course of peace and progress."¹⁴⁵ In the interview which the new General Secretary granted to *Time* in September 1985, this theme was repeated. He indicated that his reason for granting the interview is that he wanted the opportunity to communicate to the West

¹⁴⁵ *Pravda*, 12 March 1985.

his major theme: his deep concern--and his hopes--for future U.S., Soviet relations. He implied that his stress on revitalizing the economy of the Soviet Union would require a relative peaceful, stable relationship with the rival superpower. He asked, "What are the external conditions that we need to be able to fulfill those domestic plans? I leave the answer with you."¹⁴⁶ Gorbachev's peace drives have continued in this vein throughout his two and a half years in office.

As a result of his policies, the world has witnessed a calliope of Soviet peace initiatives and grand examples of their "peace loving ways." Gorbachev and various Soviet leaders have held summits in a variety of locations with many different U.S. representatives including the President. The acclaimed goal is a more peaceful world through arms control. Two years of negotiations appear to be resulting in an "historic" arms control treaty.

A great many distinctive peace groups, in particular those from the United States, have been invited to and hosted by the Soviet Union. To further advance the notion that things have really changed in that country, dissidents have been released from internal exile. Unprecedented acts, such as Gorbachev placing a telephone call to Andrei Sakharov announcing his release, have been publicized. The words *glasnost*, *perestroika* and *uskorenje* have become terms of peaceful incantation.

In an attempt to convince the world of the sincerity of the Soviet's "peaceful" intentions, rumors of the subordination of the military have been allowed to escape to an expectant world. Much speculation has resulted over the supposed cuts to the military budget and the military's reaction, to both the cuts and to Gorbachev's drive for the INF treaty. Review of the lack of the assignment of military representation to top party posts, especially to the Politburo, has led to suspicions of a rift between Gorbachev with his new technocrats and the military leadership.

¹⁴⁶ George J. Church, "Moscow's Vigorous Leader," *Time*, 9 September, 1985, p. 17.

Conjecture of the suppression of military influence arose in the wake of Twenty-seventh Party Congress statements. "A clause in the Draft Program has not served the military interest. It breaks ground for reserving for party leaders the right to formulate Soviet military doctrine, which included forecasting the probability of war."¹⁴⁷

None of these rumors have received substantiation by hard actions. Questions are raised on the basis of these conjectures. Why the staged performances of the benevolent country? Why these drives at peace initiatives? Why the rumored reduction of the importance of the military in a country which has given the military top priority for the past 70 years? Why the attempt to project the image of a peace loving country whose only concern is the betterment of the life of its citizens?

While there may be some degree of substance to truth of these speculations, it could also be that these measures fulfill the requirement for the last piece of the doctrinal puzzle. It is apparent that Gorbachev needs a lowering of world tensions to achieve his domestic goals. Such a stabilization of international relations will ultimately result in the reallocation of greatly needed yet currently scarce resources from the ever demanding military to economic modernization. A relaxed world environment will also allow the Soviets to take legal advantage of the technological advanced countries, some of whom have been in opposition to the Soviets in the past. Example countries are Japan, West Germany and the United States. The final variable required for Soviet military doctrinal revolution is occurring.

H. THE SOVIET CONCEPT OF WAR

The Soviet concept of war is unique and is an important controlling factor in the revolution of military affairs. War for the Soviets encompasses more than armed combat. The military is in charge of the elements of armed struggle--military strategy and

¹⁴⁷ Sidney I. Ploss, "A New Soviet Era?" *Foreign Policy*, Spring 1986, pp. 55-56.

military science. The Soviets, however, are guided by Clausewitz's formula that war is a continuation of politics. "We know that a war is not limited to armed struggle. It also involves other forms of struggle--economic, political and ideological--employed in the conduct of war."¹⁴⁸

Soviet military decisionmaking is dominated by the Party and ultimately by the Politburo. The Defense Council oversees the preparation of the country, economy and people for war.¹⁴⁹ It is the highest decisionmaking body for all aspects of national security policy.¹⁵⁰ The council conveys the Party's wishes on all defense, budgetary, organizational and senior personnel matters. The current membership of the Defense Council appears to be composed of a majority of Politburo members without military representation. M. Gorbachev is the chairman.

The Politburo is also in charge of the other areas of war--economics, politics, ideology, science and technology. The struggle for economic reform and advancement in science and technology, therefore, should be considered important in their own right. The moves at economic, science and technical reform carry even greater implications when considering the "correlation of forces".

The "correlation of forces" is a calculation of many factors used as a mode of analysis for Soviet leaders in assessing and building the strength of their country.¹⁵¹ Many components are utilized in calculating the "correlations of forces". The economic and military potentials of different states and their associations constitute important ele-

¹⁴⁸ S. A. Bartenev, *Economic Conflict in Warfare* (Moscow: Military Publishing House, 1986).

¹⁴⁹ Scott, p. 107.

¹⁵⁰ U.S. Department of Defense, *Soviet Military Power, 1987*, 6th ed. (Washington: Government Printing Office, 1987), p. 1.

¹⁵¹ For discussions on correlation of forces, see: Vernon V. Aspaturian, "Soviet Global Power and the Correlation of Forces," *Problems of Communism*, May-June 1980, pp. 1-18; and V. Zagladin, "World Balance of Forces and the Development of International Relations," *International Affairs* (Moscow), March 1985, pp. 65-79.

ments. Other factors include "the existence of reliable socio-political allies among other states, national contingents of congenial classes, mass international movements and other political forces active in the world scene"¹⁵² and intrinsic social factors and the direction of their movements--for or against the status quo.

The possibility exists that a calculation of the international "correlation of forces" showed the current Soviet leadership the necessity for both economic and technical reform not only to maintain a military equality with the United States but also to sustain general state power. Historically the Soviet Union survived and developed its capabilities for decades when it was militarily weak. The leadership had to rely upon other than conventional elements of national power to make up for its military deficiencies.¹⁵³ ". . . the Soviet leadership is experienced and well versed in the manipulation and mobilization of various 'exotic' nonmilitary elements that can be factored into the 'correlation of forces.'"¹⁵⁴

At this time, the Soviets are not in a weakened military position; they have achieved parity with the United States. It is the advancement of U.S. technology in areas of new physical concepts which threatens the current favorable "correlation of forces". The present status quo in the military balance will free the Soviets to mobilize non-military elements to develop and advance such technologies as microcircuitry, electronics and "new physical concepts" in the calculation of the "correlation of forces".

I. THE OBSCURE LINK

The most difficult linkage to examine in this discussion is the connection between the present General Secretary and the former Chief of the General Staff. An in-depth

¹⁵² A. Sergiyev, "Leninism on the Correlation of Forces as a Factor of International Relations," *International Affairs* (Moscow), May 1975, p. 103.

¹⁵³ Aspaturian, p. 9.

¹⁵⁴ *Ibid*, pp. 9-10.

examination of any subject involving the Soviet Union is made all the more difficult by the nature of the society itself. The Soviet Union is a closed society with a propensity to deception and secrecy. The cultural background of the Russian society which cloaks its leaders in a shroud of silence compounds the difficulties of establishing a relationship between the two men. Yet many experts have sought to do just that.¹⁵⁵

Keeping in mind these constraints, a pattern of relationship has emerged through the research connected with this discussion. The connection between these two men became evident in 1983. Yuri Andropov was General Secretary. Gorbachev--being groomed for the top Soviet leadership--served as Andropov's second in command. When Andropov disappeared from public view in September 1983, reportedly from illness, it was Gorbachev who assumed the reigns of power. It was this same man who chaired the crisis management group to handle the downing of the Korean Airline Flight 007 in September 1983 and who appointed Marshal Ogarkov to explain the incident to the press.¹⁵⁶ Ogarkov was assigned to talk with the press after the Soviets walked out of the INF negotiations in Geneva in 1983.¹⁵⁷ Though the short tenure of Chernenko revealed no stellar appearances by Ogarkov, that Ogarkov as the Chief of the General Staff and Gorbachev, again as second in command to an ailing Chernenko had dealings is highly likely.

Ogarkov's reassignment in September 1984 could have indeed been solely a disciplinary measure but it could have equally been for a combination of reasons. The prospective General Secretary, Gorbachev, did not yet wield the same power under Chernenko as he did under his mentor, Andropov. He thus would have been unable to stymie any action against Ogarkov. Yet as the "crown prince" Gorbachev could have

¹⁵⁵ For a discussion of links between Ogarkov and Gorbachev, see: Crozier, "The Ogarkov Factor"; Medvedev, *Gorbachev*, pp. 130 and 231-234; and Greenwald, p. 131.

¹⁵⁶ Medvedev, p. 130.

¹⁵⁷ Doder, p. 202.

used influence to extend some protection to Ogarkov. That Ogarkov was not disgraced or retired or both lends credence to this. A contribution to Ogarkov's favorable "reassignment" is easily that the military doctrinal revolution espoused by him was the precursor to the economic reforms of Gorbachev. Their goals are the same. A good tactic would be to remove Ogarkov from the political arena where he was an irritant to the "Old Guard" and to put him in a position which would allow him to concentrate on honing the military-operational portion of his revolution, especially if there were now a proponent of that revolution in the political arena at the highest levels of leadership.

The link between the two men would appear even stronger today. As shown, discussions based on the theories of Ogarkov goes on today in the Soviet Union. The Marshal himself is not altogether quiet. In October 1986, a short article by Ogarkov appeared in the October issue of the "Military Bulletin" which is published by the Soviet press agency, *Novosti*. In the article Ogarkov repeated his call for modern equipment and increased firepower for the Soviet armed forces.¹⁵⁸ "He stressed that Soviet military doctrine required an industry capable of solving even the most difficult defense-equipment problems and capable of producing the sophisticated equipment necessary."¹⁵⁹ At a time when Gorbachev continued his shake-up of the top military leadership, it is doubtful he would allow the publication of an article by a military leader such as Ogarkov if it did not reflect the General Secretary's thinking.

The joining of forces of these two men portends an important implication. The first, Ogarkov, supports evolutionary technology for the security of the Soviet Union. He has stressed avenues available to the Soviets which when used could give them the military technological advantage. He is a technocrat but not a politician; and, he can be called a fore-sighted, professional military officer.

¹⁵⁸ *International Defense Review*, vol. 20, no. 1/1987, p. 14.

¹⁵⁹ *Ibid.*

Gorbachev's education and experiences, on the other hand, are quite lacking in military expertise. He does, however, know economics and appears to know his enemies. He can be credited with being a master of public relations. He has successfully built a world image of peace-maker, mediator and diplomatic expert.

If these two men are united in a doctrinal revolution, their combined efforts toward the single goal of socialism over capitalism bodes nothing but ill for the West.

V. CONCLUSION

Predicting a country's future courses of action based on any study is not possible. What can be achieved is the identification of a nation's historic patterns of behavior. Examination of these traditional patterns then leads to the enumeration of common variables. These repetitive factors can then be used as discriminators against current events in the country under study. This practice ultimately can be used effectively by another country in determining policies.

The comparison of traditional patterns of behavior against current events in the Soviet Union can also result in misconstrued information. While this possibility exists, in many cases, the comparison serves to clarify and focus issues. When considering the ultimate benefactor of Russian and Soviet economic reform--the military--the latter strikes true.

Soviet economic reform proposed to benefit the average citizen does appear to have an underlying purpose. Economic reform seems to be necessary for advances in indigenous technology.

In the 1990s, a successful economic revitalization program could have a significant effect on the military. If the Soviets achieve at least partial success in industrial modernization and can sustain accelerated growth, the economic base for military modernization--most importantly in sophisticated, high technology systems--will be strengthened substantially.¹⁶⁰

The motivating factor for the quest of competitive technology has actually been a factor within another. Changing military doctrine has historically preceded both economic reform and the resulting advancement of Soviet military technology needed to support doctrinal change. The stimulus of military doctrine is created by the leadership. In

¹⁶⁰ *Soviet Military Power, 1987*, p. 15.

continual comparison with the rival superpower, Soviet leaders find their country sadly lacking. This perceived lag is the ultimate threat to the Soviets. Capitalism should not be overtaking socialism. This process should be reversed.

An examination of current events in the Soviet Union utilizing these variables as comparative factors has impact for the United States. If the present events are indicators that the Third Revolution in military affairs is in progress, its conclusion will have as much effect on the United States as the first two did. The ultimate goal of the Soviets is the demise of capitalism--with the United States as proxy. The policy considerations in general are elementary. Does the United States help or hinder the Soviet Union in its new quest? What end result is desired? In reaching decisions, U.S. policymakers must take into account the goal of the Third Revolution and the ultimate goal of Communism.

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